

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Erin E. Chancellor, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 13, 2023

Regional Administrator Earthea Nance, Ph.D., P.E.
U.S. Environmental Protection Agency Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270

Re: Texas Pollutant Discharge Elimination System (TPDES) Permit No. TX0138347
(WQ0005253000) for the Port of Corpus Christi Authority of Nueces County (POCC)

Dear Regional Administrator Nance,

The Texas Commission on Environmental Quality (TCEQ) is in receipt of the January 19, 2023, letter¹ from the U.S. Environmental Protection Agency (EPA) regarding the abovementioned properly issued permit. At the time of receipt, the permit application was pending before the Commission and the letter was not part of the closed administrative record. Accordingly, during that time, the Texas Government Code prohibits the Commissioners from reviewing and responding to this letter. Now that period has passed, and the agency would like to take this opportunity to correct certain inaccuracies in your letter.

First, EPA's "interim objections" to the permit were untimely. Additionally, EPA's termination of a review waiver is not retroactive and does not apply to Permit No. TX0138347. Pursuant to Item IV.C.8 in the Memorandum of Agreement between TCEQ and EPA (MOA), and Title 40 Code of Federal Regulations (CFR) § 123.44, EPA was not entitled to a review of Permit No. TX0138347 before issuance. EPA did not follow the agreed upon procedures laid out in the MOA, which Texas relies upon to properly administer the National Pollutant Discharge Elimination System (NPDES) program in Texas. This response should in no way be construed to validate the untimely interim objections, set a precedent that TCEQ will accept and respond to untimely interim objections in the future, or be interpreted as TCEQ acknowledging EPA's position that Permit No. TX0138347 was not properly issued and, therefore, is not valid.

EPA Chose Not to Timely Engage on Permit No. TX0138347 Despite Ample Opportunities

Since EPA authorized delegation of the NPDES program to Texas in 1998, TCEQ has maintained a robust permitting program, which includes public participation at multiple junctures in the permitting process. EPA is extremely familiar with TCEQ's processes and is always welcome and encouraged to participate in the permitting process. TCEQ continues to encourage mutual cooperation in permitting matters between our two agencies.

As TCEQ has previously stated to EPA, TCEQ staff have spent over 2,700 hours² working on this permitting matter, spanning almost five years. Since the application was filed in March 2018,

¹ See Attachment A – Jan. 19, 2023 EPA Letter to TCEQ.

² Technical staff has spent 950 hours preparing for two SOAH hearings, 900 hours participating in the SOAH hearings, and 440 hours post-hearings. Legal staff spent 210 hours preparing for 2 SOAH hearings, 130 hours participating in SOAH hearings, and 160 hours post-hearings.

EPA decided to engage on this permitting matter in late September 2021,³ roughly three years after the permit was determined by TCEQ to be technically complete; approximately two and a half years after the public meeting, the filing of the Executive Director's Response to Comments, and the first Commissioners' Agenda Meeting; and approximately seven months after the SOAH Administrative Law Judges (ALJ) issued the initial Proposal for Decision (PFD).

When EPA requested engagement on this permit matter three and a half years into the permitting process, the Executive Director had already drafted a permit. As contemplated by the MOA, there is not an opportunity for EPA to submit formal interim objections that would pause the permitting process. The MOA contemplates EPA submitting interim objections much earlier in the process, which EPA often does. Submitting untimely interim objections on a permit that is already in the midst of a SOAH remand hearing does nothing but cause confusion amongst the parties and regulatory uncertainty.

As requested by EPA, TCEQ submitted correspondence from EPA into the SOAH record, and provided EPA documents.⁴ At the SOAH remand hearing, the ALJs determined that any dispute between TCEQ and EPA regarding the facility's major/minor classification were outside the scope of the issues remanded. The ALJs also noted that any concern about the validity of a TPDES permit issued without complying with EPA's request was also outside the scope of their review.

Discussion of the Validity of EPA's Untimely Interim Objections

Irrespective of the below discussion, TCEQ notes that even if the POCC application was subject to EPA review, EPA did not specify any applicable provision of federal or state statutes or rules with which the POCC permit does not comply. Thus, EPA did not meet its obligations under the terms of the MOA.

Definition of Process Wastewater and Rating of the Facility as a Minor Based on the TPDES Permit Major/Minor Rating Worksheet

The minor classification rating for the proposed POCC facility, which was determined consistent with EPA's NPDES Permit Rating Worksheet (Worksheet), is the correct classification. TCEQ staff used the Worksheet to determine a numeric rating for the potential toxicity of the effluent generated by POCC. As you know, EPA's Worksheet, promulgated by EPA in 1990, considers the toxic pollutant potential of the industrial activity, the effluent flow volume, discharge of conventional pollutants (including oxygen-demanding pollutants, total suspended solids, and nitrogen pollutants), public health impacts, water quality factors, and proximity to coastal waters. If the facility numeric rating is over a certain threshold (i.e., 80), the facility is classified as major. If a facility's major/minor classification is changed, the new classification takes effect following permit issuance and EPA approval of the Worksheet. In this case, the numeric rating was 44.5 (i.e., a minor facility).⁵

EPA asserts that water treatment wastes from desalination plants meet the definition of process wastewater. In turn, EPA asserts the proposed facility should have received a major classification rating, based on EPA's Worksheet⁶ and, as a result, the draft permit should have been sent to EPA for review.

However, since receiving delegation from EPA for implementation of the NPDES Program in 1998, TCEQ has never considered water treatment wastes from desalination plants to be process wastewater, and EPA never disputed this determination until December 15, 2021,⁷ when EPA submitted its Interim Objection letter for Permit No. TX0138347. Prior to December 15,

³ See Attachment B – Sep. 20, 2021 EPA Letter to TCEQ.

⁴ See Attachment C – Timeline.

⁵ See Attachment D – Major/Minor Rating Worksheet for Permit No. TX0138347.

⁶ *NPDES Permit Rating Work Sheet*, EPA, 1990.

⁷ See Attachment E – Dec. 15, 2021 EPA Letter to TCEQ.

2021, EPA reviewed TPDES draft permits for facilities producing water treatment wastes associated with desalination. During the review of those draft permits, EPA did not object to nor provide comments regarding TCEQ's consideration of water treatment wastes as a non-process wastewater.

Process wastewater is defined as any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.⁸ TCEQ has not historically considered water treatment wastes from desalination plants to be process wastewater for several reasons.

First, EPA instructions for completing the permit rating worksheet⁹ establish three types of wastewater: (1) Type I (non-contact cooling water); (2) Type II (process wastewater); and (3) Type III (neither non-contact cooling water nor process wastewater). The document describes Type II process wastewater as "wastewaters resulting from most manufacturing processes," and therefore clearly allows for discretion. TCEQ has exercised this discretion by not classifying water treatment wastes from desalination plants as process wastewater.

For example, regarding iron and steel manufacturing, 40 CFR § 420.02(r) states:

"The term non-process wastewaters means utility wastewaters (for example, water treatment residuals, boiler blowdown, and air pollution control wastewaters from heat recovery equipment); treated or untreated wastewaters from groundwater remediation systems; dewatering water for building foundations; and other wastewater streams not associated with a production process."

Water treatment residuals includes water treatment wastes from desalination plants. If a strict literal interpretation of the definition of process wastewater is applied, the "water treatment residuals" listed as non-process wastewater in 40 CFR § 402.02(r) would be considered process wastewater. Therefore, since this federal regulation defines utility wastewater/water treatment residuals as non-process wastewater, there is federal support for TCEQ's position.

Second, EPA has conducted at least two Permit Quality Reviews of TCEQ's TPDES program. During these comprehensive reviews, EPA did not raise any concerns with TCEQ's longstanding practice of not finding water treatment wastes to be process wastewater.

Third, EPA's December 15, 2021 letter seems to imply that seawater feedstock is a "raw material" and potable water is a "finished product," within the meaning of 40 CFR §§ 122.2 & 401.11(q).¹⁰ Absent from EPA's letter, however, is any limiting principle that would distinguish POCC from any other water-treatment operations at the state, county, or municipal levels. Nor has EPA identified any text in Title 33 U.S. Code §§ 1342 or 1362(6) that authorizes federal overreach of this sort.

Therefore, TCEQ continues to consider water treatment wastes to not be a process wastewater, meaning the POCC permit application was correctly classified as a minor pursuant to the Worksheet. A change in this interpretation by EPA, without public input, will result in significant unintended consequences for applicants and existing permittees across the nation.

Clean Water Act (CWA) § 316(b) Rule and Requirements

CWA § 316(b) applies to intake structures when a portion of the water withdrawn is used exclusively for cooling purposes. Based on information provided by POCC in its application, the water withdrawn is not proposed to be used for cooling purposes.

EPA requested amendment of the permit to include a requirement for POCC to notify TCEQ of any modification to the use of water withdrawals from the intake structure. As noted in EPA's

⁸ See 40 CFR § 401.11(q), 40 CFR § 122.2, Title 30 Texas Administrative Code § 305.2.

⁹ *Instructions for Completing the NPDES Permit Rating Worksheet*, EPA, 1990.

¹⁰ See Attachment E, page 4.

December 15, 2021 letter, the current permit already contains Standard Permit Conditions Items 1(a) and 4(a), which require POCC to notify TCEQ of any changes to the representations made in the application for the current existing permit.

CORMIX Model Results

EPA's comment regarding the CORMIX model results was intended to memorialize the correspondence between EPA and TCEQ, in which EPA agreed with how TCEQ used the CORMIX modeling results in TCEQ's review of the POCC application.¹¹ EPA did not request any changes to the POCC permit.

Permit Conditions for Total Dissolved Solids (TDS), Sulfates, and Chlorides

EPA requested additional information and rationale on how TCEQ used Best Professional Judgment (BPJ) to determine that the monitoring and reporting requirements for TDS, sulfates, and chlorides included in the draft permit were appropriate.

It is standard TCEQ practice to include monitoring and reporting requirements for dissolved solids (including TDS, chloride, and sulfate) on the basis of BPJ when a proposed discharge contains water treatment wastes. EPA has previously approved permits with identical requirements on the basis of BPJ, without requesting additional information or rationale.

Tier 2 Antidegradation Review

EPA requested clarification of TCEQ's Tier 2 antidegradation review of the POCC application. A vetted antidegradation statement is included in the technical summary for the draft permit, and technical staff document the basis for the antidegradation determination in a worksheet that is maintained internally. The information provided in the current statement of basis that EPA reviewed is consistent with other technical summaries developed by TCEQ and reviewed and approved by EPA.

Whole Effluent Toxicity (WET)

EPA reminded TCEQ that the WET testing included in the draft permit should not take the place of any other biological assessment that is appropriate for water quality assessment of this receiving stream.

The WET requirements included in the draft permit were developed in accordance with EPA's approved procedures. These requirements were voluntarily accepted by POCC and are not intended to take the place of any other biological assessment that is appropriate for water quality assessment of this receiving stream.

TCEQ Requests Adherence to the MOA

For decades, TCEQ and EPA have enjoyed a mutually beneficial state-federal relationship regarding TCEQ's delegated programs. When the tenets of cooperative federalism are upheld and respected, state and federal governments can optimally function in tandem. No better example of cooperative federalism exists than that of the state-federal relationship and federally delegated programs, which includes the ability of both agencies to rely upon the agreed upon terms of a longstanding MOA. The federal agency's function is to enhance the state agency's ability to administer the program. The federal agency is to provide oversight in a manner that is consistent and timely. Across administrations, EPA has fulfilled its oversight responsibility by sharing responsibility with the states in a way that supports the authorized state program while minimizing the need for EPA's interaction. This relationship looks to diminish duplicative requirements that ultimately intrude upon state autonomy.

¹¹ See Attachment E, pages 5-6.

Attempting to apply decisions retroactively in conflict with the MOA impedes upon this state-federal relationship. TCEQ asks that EPA return to its practice of adhering to the terms of the MOA.

If you have any further questions, please contact me at (512) 239-3900.

Sincerely,

A handwritten signature in black ink that reads "Erin E. Chancellor". The signature is written in a cursive, flowing style with a small dot above the 'i' in Erin.

Erin E. Chancellor
Interim Executive Director
Texas Commission on Environmental Quality

Attachment A – Jan. 19, 2023 EPA Letter to TCEQ



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

Office of the Regional Administrator

January 19, 2023

Jon Niermann, Chairman
Office of Commissioners
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: TPDES Permit No. TX0138347 (WQ0005253000)
Port of Corpus Christi Authority of Nueces County

Dear Chairman Niermann:

The U.S. Environmental Protection Agency, Region 6 is in receipt of TPDES Permit No. TX0138347 (WQ0005253000), issued by the Texas Commission on Environmental Quality to the Port of Corpus Christi Authority of Nueces County on December 20, 2022. The Environmental Protection Agency sent the attached Interim Objection to the Texas Commission on Environmental Quality's issuance of this permit on December 15, 2021, and our objection remains unresolved.

The Texas Commission on Environmental Quality's issuance of TPDES Permit No. TX0138347 without responding to the Environmental Protection Agency's Interim Objection is a violation of Clean Water Act § 402, the Environmental Protection Agency's regulations at 40 C.F.R. § 123.44 and 40 C.F.R. § 122.4(c), and the Memorandum of Agreement between the Environmental Protection Agency and the Texas Commission on Environmental Quality. Until such time as the Texas Commission on Environmental Quality responds to the Interim Objection to address the Environmental Protection Agency's concerns, the Environmental Protection Agency continues to view this permit as a draft permit and not an effective National Pollutant Discharge Elimination System permit for CWA purposes. Thus, it does not provide CWA authorization for the discharge of pollutants to waters of the United States from the Port of Corpus Christi Authority of Nueces County facility. Under CWA § 301, it is unlawful for any person to discharge any pollutant to waters of the United States without authorization under specific provisions of the CWA, including the section 402 National Pollutant Discharge Elimination System permitting program.

We appreciate your time and attention to this important matter, and we continue to be open to dialogue on the topics addressed in this letter and in previous correspondence. A copy of this letter has also been forwarded to the POCC. If you have any questions, please feel free to contact Charles Maguire at (214) 665-8138 or maguire.charles@epa.gov.

Sincerely,

Earthea Nance, PhD, PE
Regional Administrator

Attachment

cc: Erin Chancellor, Interim Executive Director
TCEQ

Mary Smith, General Counsel
TCEQ

Charmaine Backens, Acting Director, Office of Legal Services
TCEQ

Vic McWherter, Public Interest Counsel
TCEQ

Sean Strawbridge, Chief Executive Officer
Port of Corpus Christi Authority

Eric Allmon
Perales, Allmon & Ice, P.C., representing
Port Aransas Conservancy

Attachment B – Sep. 20, 2021 EPA Letter to TCEQ



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

September 20, 2021

Mr. Earl Lott, Director
Office of Water (MC-158)
Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, TX 78711-3087

Re: Notice of Termination – Permit Review Waiver
Permits for Desalination Facilities, including
Port of Corpus Christi Authority of Nueces County
TPDES Permit No. TX0138347 (WQ0005253000)

Dear Mr. Lott:

This letter regards EPA review of draft permits for desalination facilities, including the draft permit and application (TPDES No. TX0138347, WQ0005253000) for the Port of Corpus Christi Authority of Nueces County (“Port Authority”) initially submitted to your office on March 2018. EPA hereby terminates its waiver of review of these draft permits in accordance with Section IV.C.8 of the 2020 Memorandum of Agreement (MOA) between the TCEQ and the EPA concerning the National Pollutant Discharge Elimination System. With regard to TPDES Permit No. TX0138347, the Port Authority proposes to operate a desalination plant to provide an additional water source (potable water) to the surrounding community during drought conditions. Because this facility is classified as a minor by TCEQ, it was not forwarded to EPA for review pursuant to EPA’s waiver of review of permits for minor facilities under the MOA. However, the EPA Region 6, is aware of the concerns over TCEQ’s permitting process with regard to this permit as well as the impacts of the proposed discharge to aquatic life, the water quality of the receiving waterbody Corpus Christi Bay, and the TCEQ’s overall permit development and issuance process. We are aware that a State Office of Administrative Hearing (SOAH) contested case hearing was held July 9, 2020, on the draft permit and application, after which the Administrative Law Judges (ALJs) provided a recommendation for the TCEQ to deny the permit. The TCEQ Commissioners signed an Interim Order, May 26, 2021, filed by the SOAH June 1, 2021, remanding the proposed permit and application back to the SOAH for additional evidence. We also understand the applicant provided additional information, which resulted in a revised application/draft permit/statement of basis, and that a preliminary hearing is to be scheduled in the near future.

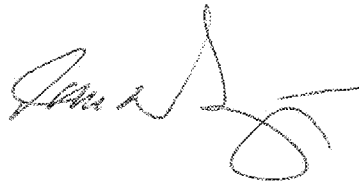
As part of our oversight role and responsibility, the EPA continues to be committed in partnering with our state counterparts to ensure the efficiency of the administration of the NPDES permitting program. More specifically, the EPA is to ensure that state issued permits are consistent with the requirements of the Clean Water Act (CWA) and protective of water quality and aquatic life. Therefore, in accordance with Section IV.C.8 of the MOA, which states that “EPA does not relinquish the right to petition the

TCEQ for review of a permit action or inaction because of a possible violation of federal or state statutes, rules, and policies. The EPA may terminate a waiver as to future permit actions, in whole or in part, at any time, by sending the TCEQ a written notice of termination,” the EPA rescinds its waiver of review of draft permits for desalination facilities, including draft TPDES permit No. TX0138347 (WQ0005253000) and requests the submittal of these draft permits to EPA for review in accordance with Section IV.C.8 of the MOA.

Because the State permitting process with regard to TPDES permit No. TX0138347 has been ongoing for some time, the EPA is requesting not only review of any revised draft permit with regard to this facility, but also documents in TCEQ’s files related to the Port Authority’s original March 2018 application and the proposed permit submitted to the Commissioners on May 19, 2021, including TCEQ’s response to public comments and the ALJs Proposal for Decision following the contested case hearing. See Section IV of the MOA related to EPA’s review of TCEQ’s permits on appeal and Section III.A.10 of the MOA, which provides that TCEQ files related to TPDES permits will be readily available to EPA. Pursuant to Section VIII.A.6. of the MOA, EPA requests TCEQ forward the above requested information within 10 days of receipt of this letter.

We look forward to working with you and your staff, during this permit issuance process. Feel free to contact me at (214) 665-8138, if you have any questions or have your staff contact Mark Hayes at (214) 665-2705, or EMAIL:hayes.mark@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Charles W. Maguire', with a stylized flourish at the end.

Charles W. Maguire
Director

Water Division (WD)

cc (electronic): Robert Sadlier, Deputy Director
Water Quality Division (MC-145)
TCEQ

Matthew Udenenwu, Section Manager
Wastewater Permitting Section (MC-148)
TCEQ

Ms. Shannon Gibson
Industrial Permits Team
Wastewater Permitting Section (MC-148)
TCEQ

Attachment C – Timeline

- **Mar. 7, 2018:** TCEQ received POCC's application for a new TPDES permit.
- **June 26, 2018:** TCEQ performed a thorough administrative review of the POCC permit application and declared it administratively complete.
- **Oct. 11, 2018:** TCEQ performed a thorough technical review of the POCC permit application and declared it technically complete.
- **Apr. 8, 2019:** TCEQ held a public meeting in Port Aransas, which was properly noticed and open to the public.
- **July 3, 2019:** The Executive Director's Response to Comments was filed, which included responses to 125 comments from approximately 500 individuals; no comments were submitted by EPA.
- **Nov. 6, 2019:** At a publicly noticed Commissioners' Agenda Meeting that was open to the public, Commissioners considered the contested case hearing requests and referred nine issues to SOAH:
https://www.tceq.texas.gov/assets/public/comm_exec/agendas/comm/backup/Agendas/2019/11-06-2019/corpus.pdf
- **July 9, 2020:** SOAH preliminary hearing.
- **Nov. 4-10, 2020:** SOAH hearing on the merits.
- **Feb. 5, 2021:** The ALJs issued the PFD, finding that the evidentiary record does not support issuance of the draft permit and recommended denial of the application.
- **May 19, 2021:** At a publicly noticed Commissioners' Agenda Meeting that was open to the public, Commissioners considered the ALJs' PFD and remanded the application to SOAH to take additional evidence on six issues:
https://www.tceq.texas.gov/assets/public/comm_exec/agendas/comm/backup/Agendas/2021/05-19-2021/pocca.pdf
- **June 25, 2021:** POCC provided an amended application.
- **July 28, 2021:** POCC provided additional information for the amended application.
- **June 25-Aug. 26, 2021:** ED performed a full review of the amended application and prepared a revised draft permit, which complies with or exceeds all applicable federal and state statutes, rules, and policies to protect water quality and the environment.
- **Sep. 20, 2021:** EPA's first letter to TCEQ regarding this permitting matter.
 - EPA Region 6 Director of the Office of Water sent a letter to TCEQ's Director of the Office of Water, informing TCEQ that EPA had terminated its waiver of review of draft permits for desalination facilities in accordance with Section IV.C.8 of the 2020 MOA between TCEQ and EPA concerning the NPDES program. The letter stated that Region 6 was "aware of the concerns over TCEQ's permitting process with regard to this permit as well as the impacts of the proposed discharge to aquatic life, the water quality of the receiving waterbody Corpus Christi Bay, and the TCEQ's overall permit development and issuance process."
- **Sep. 30, 2021:** Pursuant to Section III.A.6 of the MOA, TCEQ Director of the Office of Water sent a letter to the EPA Region 6 Director of the Office of Water, which included the administrative record and permit, as well as email instructions for how to access the documents via FTP.
- **Nov. 12, 2021:** TCEQ Director of the Office of Water sent a letter to the EPA Region 6 Director of the Office of Water questioning the timeliness of its waiver termination.
- **Dec. 15, 2021:** EPA Region 6 Director of the Office of Water sent a letter to TCEQ's Director of the Office of Water with interim objections to the POCC draft permit.
- **Jan. 31, 2022:** TCEQ Director of the Office of Water sent a letter to the EPA Region 6 Director of the Office of Water acknowledging receipt of EPA's Dec. 15, 2021 letter and informing EPA the objection letter was incorporated into the SOAH administrative record.
- **Mar. 1, 2022:** EPA Region 6 Director of the Office of Water sent a letter to TCEQ's Director of the Office of Water insisting the facility should be classified as major and requesting additional information.

- **Mar. 14-25, 2022:** SOAH remand hearing on the merits.
- **June 20, 2022:** The ALJs issued the remand PFD, finding that the evidentiary record supports issuance of the draft permit with modifications.
- **June 27, 2022:** TCEQ emailed SOAH's remand PFD to EPA.
- **Sep. 2, 2022:** EPA Region 6 Regional Administrator sent a letter containing ex parte information to TCEQ's Chairman, reiterating EPA's issues from prior letters.
- **Sep. 7, 2022:** At a publicly noticed Commissioners' Agenda Meeting that was open to the public, Commissioners considered the ALJ's remand PFD and continued the item to the next Commissioners' Agenda Meeting:
<https://www.tceq.texas.gov/downloads/agency/decisions/agendas/backup/2019/2019-1156-iwd-index.pdf>
- **Sep. 22, 2022:** At a publicly noticed Commissioners' Agenda Meeting that was open to the public, Commissioners considered the ALJ's remand PFD and issued the POCC permit with modifications.
- **Dec. 23, 2022:** TCEQ emailed the final POCC permit to EPA.
- **Jan. 18, 2023:** Port Aransas Conservancy filed its Motion for Rehearing.
- **Jan. 19, 2023:** EPA Region 6 Regional Administrator sent a letter containing ex parte information to TCEQ's Chairman, stating that EPA does not consider TCEQ's properly issued permit to be a valid permit under the Clean Water Act.
- **Jan. 27, 2023:** POCC filed its Response to Protestant's Motion for Rehearing.
- **Feb.13, 2023:** Protestant's Motion for Rehearing overruled by operation of law.

Attachment D – Major/Minor Worksheet for the POCC Permit

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

 TPDES No.: WQ0005253000

 NPDES No.: TX0138347

 Facility Name: Port of Corpus Christi Authority of Nueces County

 City/County: Corpus Christi / Nueces

Receiving Water (Name/Segment No.):

| | |
|---------------------------|-------------|
| <u>Corpus Christi Bay</u> | <u>2481</u> |
|---------------------------|-------------|

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (no cooling pond/lake).
2. A nuclear power plant.
3. Cooling water discharge greater than 25% of the receiving waters 7Q2 flow rate.

☐ YES (score is 600, stop here).
☒ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

☐ YES (score is 700, stop here).
☒ NO (continue)

FACTOR 1: Toxic Pollutant Potential

 Primary SIC Code: 4491

Other SIC Codes: _____

Industrial Subcategory Code _____

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one.

| Toxicity Group | Code | Points | Toxicity Group | Code | Points | Toxicity Group | Code | Points |
|---|------|--------|-----------------------------|------|--------|------------------------------|------|--------|
| <input checked="" type="checkbox"/> No process wastestreams | 0 | 0 | <input type="checkbox"/> 3. | 3 | 15 | <input type="checkbox"/> 7. | 7 | 35 |
| <input type="checkbox"/> 1. | 1 | 5 | <input type="checkbox"/> 4. | 4 | 20 | <input type="checkbox"/> 8. | 8 | 40 |
| <input type="checkbox"/> 2. | 2 | 10 | <input type="checkbox"/> 5. | 5 | 25 | <input type="checkbox"/> 9. | 9 | 45 |
| | | | <input type="checkbox"/> 6. | 6 | 30 | <input type="checkbox"/> 10. | 10 | 50 |

| | |
|------------------------|----------|
| CODE NUMBER CHECKED | <u>0</u> |
| TOTAL POINTS FACTOR 1: | <u>0</u> |

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or B; check only one)

SECTION A - Wastewater Flow Only Considered

| | Code | Points |
|-------------------|--|--------|
| Type I: | | |
| Flow < 5 MGD | <input type="checkbox"/> 11 | 0 |
| Flow 5 to 10 MGD | <input type="checkbox"/> 12 | 10 |
| Flow 10 to 50 MGD | <input type="checkbox"/> 13 | 20 |
| Flow > 50 | <input type="checkbox"/> 14 | 30 |
| Type II: | | |
| Flow <1 MGD | <input type="checkbox"/> 21 | 10 |
| Flow 1 to 5 MGD | <input type="checkbox"/> 22 | 20 |
| Flow 5 to 10 MGD | <input type="checkbox"/> 23 | 30 |
| Flow > 10 MGD | <input type="checkbox"/> 24 | 50 |
| Type III | | |
| Flow < 1 MGD | <input type="checkbox"/> 31 | 0 |
| Flow 1 to 5 MGD | <input type="checkbox"/> 32 | 10 |
| Flow 5 to 10 MGD | <input type="checkbox"/> 33 | 20 |
| Flow > 10 MGD | <input checked="" type="checkbox"/> 34 | 30 |

SECTION B - Wastewater & Stream Flow Considered

| | Percent Effluent @ Mixing Zone | Code | Points |
|--------------------|--------------------------------|-----------------------------|--------|
| Type I/III: | < 10% | <input type="checkbox"/> 41 | 0 |
| | 10% to 50% | <input type="checkbox"/> 42 | 10 |
| | > 50% | <input type="checkbox"/> 43 | 20 |
| Type II: | < 10% | <input type="checkbox"/> 51 | 0 |
| | 10% to 50% | <input type="checkbox"/> 52 | 20 |
| | > 50% | <input type="checkbox"/> 53 | 30 |

| | |
|------------------------|-----------|
| CODE NUMBER CHECKED | <u>34</u> |
| TOTAL POINTS FACTOR 2: | <u>30</u> |

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0005253000

FACTOR 3: Conventional Pollutants *(Only when limited by the permit)*

A. Oxygen Demanding Pollutant: (check one) ☐ BOD/CBOD ☐ COD ☐ Other:

| Permit Limits: (check one) | | | <u>Code</u> | <u>Points</u> |
|----------------------------|----------------------|--|-------------|---------------|
| <input type="checkbox"/> | < 100 lbs/day | | 1 | 0 |
| <input type="checkbox"/> | 100 to 1000 lbs/day | | 2 | 5 |
| <input type="checkbox"/> | 1000 to 3000 lbs/day | | 3 | 15 |
| <input type="checkbox"/> | > 3000 lbs/day | | 4 | 20 |

B. Total Suspended Solids (TSS)

| Permit Limits: (check one) | | | <u>Code</u> | <u>Points</u> |
|----------------------------|----------------------|--|-------------|---------------|
| <input type="checkbox"/> | < 100 lbs/day | | 1 | 0 |
| <input type="checkbox"/> | 100 to 1000 lbs/day | | 2 | 5 |
| <input type="checkbox"/> | 1000 to 5000 lbs/day | | 3 | 15 |
| <input type="checkbox"/> | > 5000 lbs/day | | 4 | 20 |

C. Nitrogen Pollutant: (check one) ☐ Ammonia ☐ Other:

| Permit Limits: (check one) | | <u>Nitrogen Equivalent</u> | <u>Code</u> | <u>Points</u> |
|----------------------------|----------------------|----------------------------|-------------|---------------|
| <input type="checkbox"/> | < 300 lbs/day | | 1 | 0 |
| <input type="checkbox"/> | 300 to 1000 lbs/day | | 2 | 5 |
| <input type="checkbox"/> | 1000 to 3000 lbs/day | | 3 | 15 |
| <input type="checkbox"/> | > 3000 lbs/day | | 4 | 20 |

CODE NUMBER CHECKED

POINTS FACTOR 3:

| | | | | | | | |
|---|---|---|---|---|---|---|-------|
| A | - | B | - | C | - | | |
| A | 0 | + | B | 0 | + | C | 0 |
| | | | | | | = | 0 |
| | | | | | | | Total |

FACTOR 4: Public Health Impacts

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

- ☐ YES (If yes, check toxicity potential number below)
☒ NO (If no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column - check one below.)

| Toxicity Group | Code | Points | Toxicity Group | Code | Points | Toxicity Group | Code | Points |
|--|------|--------|-----------------------------|------|--------|------------------------------|------|--------|
| <input type="checkbox"/> No process wastestreams | 0 | 0 | <input type="checkbox"/> 3. | 3 | 0 | <input type="checkbox"/> 7. | 7 | 15 |
| <input type="checkbox"/> 1. | 1 | 0 | <input type="checkbox"/> 4. | 4 | 0 | <input type="checkbox"/> 8. | 8 | 20 |
| <input type="checkbox"/> 2. | 2 | 0 | <input type="checkbox"/> 5. | 5 | 5 | <input type="checkbox"/> 9. | 9 | 25 |
| | | | <input type="checkbox"/> 6. | 6 | 10 | <input type="checkbox"/> 10. | 10 | 30 |

CODE NUMBER CHECKED

TOTAL POINTS FACTOR 4:

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0005253000

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?*

| | Code | Points |
|---|------|--------|
| <input checked="" type="checkbox"/> YES | 1 | 10 |
| <input type="checkbox"/> NO | 2 | 0 |

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

| | Code | Points |
|---|------|--------|
| <input checked="" type="checkbox"/> YES | 1 | 0 |
| <input type="checkbox"/> NO | 2 | 5 |

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

| | Code | Points |
|--|------|--------|
| <input type="checkbox"/> YES | 1 | 10 |
| <input checked="" type="checkbox"/> NO | 2 | 0 |

CODE NUMBER CHECKED

POINT FACTOR 5:

| | | | | | | | | |
|---|-----------|---|---|----------|---|---|----------|-------------------|
| A | <u>1</u> | | B | <u>1</u> | | C | <u>2</u> | |
| A | <u>10</u> | + | B | <u>0</u> | + | C | <u>0</u> | = <u>10</u> Total |

FACTOR 6: Proximity to Near Coastal Waters

Base Score: Enter flow code here (from Factor 2): 34

Enter the multiplication factor that corresponds to the flow code: 0.15

Check appropriate facility HPRI Code (from PCS):

| | HPRI# | CODE | HPRI Score |
|-------------------------------------|-------|------|------------|
| <input type="checkbox"/> | 1 | 1 | 20 |
| <input type="checkbox"/> | 2 | 2 | 0 |
| <input checked="" type="checkbox"/> | 3 | 3 | 30 |
| <input type="checkbox"/> | 4 | 4 | 0 |
| <input type="checkbox"/> | 5 | 5 | 0 |

HPRI code checked: | 3 |

| Flow Code | Multiplication Factor |
|---------------|-----------------------|
| 11, 31, or 41 | 0.00 |
| 12, 32, or 42 | 0.05 |
| 13, 33, or 43 | 0.10 |
| 14 or 34 | 0.15 |
| 21 or 51 | 0.10 |
| 22 or 52 | 0.30 |
| 23 or 53 | 0.60 |
| 24 | 1.00 |

Base Score: (HPRI Score) 30 X (Multiplication Factor) 0.15 = 4.5 (Total Points)

- B. *Additional Points -- NEP Program*

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions)?

| | Code | Points |
|--|------|--------|
| <input type="checkbox"/> YES | 1 | 10 |
| <input checked="" type="checkbox"/> NO | 2 | 0 |

- C. *Additional Points -- Great Lakes Area of Concern*

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern?

| | Code | Points |
|------------------------------|------|--------|
| <input type="checkbox"/> YES | 1 | 10 |
| <input type="checkbox"/> NO | 2 | 0 |

CODE NUMBER CHECKED

POINT FACTOR 6:

| | | | | | | | | |
|---|------------|---|---|----------|---|---|----------|--------------------|
| A | <u>3</u> | | B | <u>2</u> | | C | <u>-</u> | |
| A | <u>4.5</u> | + | B | <u>0</u> | + | C | <u>0</u> | = <u>4.5</u> Total |

TPDES PERMIT RATING WORK SHEET

TPDES No.: WQ0005253000

SCORE SUMMARY

| <u>Factor</u> | <u>Description</u> | <u>Total Points</u> |
|-----------------------------|----------------------------------|---------------------|
| 1 | Toxic Pollutant Potential | 0 |
| 2 | Flow/Streamflow Volume | 30 |
| 3 | Conventional Pollutants | 0 |
| 4 | Public Health Impacts | 0 |
| 5 | Water Quality Factors | 10 |
| 6 | Proximity to Near Coastal Waters | 4.5 |
| TOTAL (Factors 1 through 6) | | 44.5 |

S1. Is the total score equal to or greater than 80?

- ☐ YES - Facility is a major, stop here.
☒ NO - Facility is NOT a major, proceed to S2.

S2. Do you want the facility to be designated a discretionary major?

- ☐ YES - Add 500 points to the score above and provide justification below.
☒ NO - Stop here

Justification:

| |
|--|
| |
| |
| |

Check appropriate classification:

- ☐ Major
☒ Minor
☐ Discretionary Major

Shannon Gibson
Permit Reviewer

512-239-4284
Phone Number

August 17, 2018
Date Reviewed

Attachment E – Dec. 15, 2021 EPA Letter to TCEQ



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1201 ELM STREET, SUITE 500

DALLAS, TEXAS 75270

December 15, 2021

Mr. Earl Lott, Director
Office of Water (MC-158)
Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, TX 78711-3087

Re: Interim Objection – Request for Additional Information
TPDES Permit No. TX0138347 (WQ0005253000)
Port of Corpus Christi (POCC) Authority of Nueces County

Dear Mr. Lott:

Thank you for the submittal of the proposed TPDES permit and supporting documents for the Port of Corpus Christi (POCC) Authority in response to our letter dated September 20, 2021 (Notice of Termination of permit review waiver). We received access via FTP site on October 1, 2021. In addition, we were granted an extension for review that revised the deadline from November 15, 2021 to December 15, 2021. We are also in receipt of your letter dated November 12, 2021, which questions the EPA's authority to terminate permit review waiver for the proposed TPDES permit for POCC. You state in your letter that the EPA had ample time to engage with TCEQ on this permit and did not provide comments during the public comment period. Yet, as you also noted, the POCC proposed permit was not forwarded to the EPA at the draft permit stage for review because this facility was classified by TCEQ as a Minor facility, for which the EPA waived review under the Memorandum of Agreement (MOA) between the EPA and TCEQ. However, as explained in detail in Attachment A, Item A, the EPA has determined that the POCC facility was incorrectly classified as a Minor facility under federal regulations and the Major/Minor worksheet used by the State to classify the facility. Because the facility proposes to discharge process wastewater as defined at 40 C.F.R. 122.2, the EPA has determined that the facility should be classified as a Major facility.¹ The EPA has not waived review of Major facilities. Consequently, this proposed permit should have been forwarded to EPA for review at the draft permit stage as a Major permit in accordance with federal regulations and the MOA.

After being notified of concerns regarding the permit, and of the substantial public interest in this matter, EPA requested an opportunity to review the permit in accordance with our oversight role and responsibility in partnering with our state counterparts to ensure the efficiency of the administration of the NPDES permitting program, and that state-issued permits are consistent with the requirements of the Clean Water Act (CWA) and protective of water quality and aquatic life.

EPA appreciates the time and effort that has gone into the permitting process regarding the POCC permit by both TCEQ and third parties. Nonetheless, as TCEQ noted in its November 12, 2021, letter to EPA, following a hearing before the Commission on May 14, 2021, the Commission remanded POCC's permit application to the State Office of Administrative Law Judges (SOAH) to take additional evidence. Following the remand, POCC submitted a revised application on June 25,

¹ See 40 CFR 122.2 provides "**Major facility** means any NPDES "facility or activity" classified as such by the Regional Administrator, or, in the case of "approved State," the Regional Administrator in conjunction with the State Director."

2021, and additional information on July 28, 2021. Subsequently, based on the revised application, TCEQ prepared a new Statement of Basis and revised permit. It is EPA's understanding that proceedings regarding the revised permit are ongoing before the SOAH and that a contested case hearing before an Administrative Law Judge (ALJ) will not take place before March of 2022. Consequently, EPA does not believe allowing EPA to review the permit following receipt of the requested information and provide comments in any way disrupts or slows down the process.

Our permit review process has benefitted from the open communication and coordination regarding responses and clarification from your staff to our concerns and comments. As a result of our review of the proposed permit, statement of basis, and other supporting documents, we believe additional information is needed to determine whether the proposed permit meets the guidelines and requirements of the Clean Water Act. The EPA offers comments/recommendations as outlined in Attachment A, and requests submittal of additional information and responses as appropriate. This Interim Objection is being issued pursuant to 40 CFR 123.44(d)(2). Consistent with that provision, the full period of time for EPA's review of the proposed permit will recommence when the Regional Administrator has received the information requested in this Interim Objection. Under Section IV.C.3 of the MOA, EPA will have 30 days to make a general objection to the proposed permit. If EPA makes a general objection, it reserves the right to take 90 days to supply any specific objections, as specified in 40 CFR 123.44(a)(1). However, EPA will make every effort to convey any objections in an expedited manner given the status of the permit.

In addition, EPA requests that its comments on the proposed permit be included in the record before the ALJ in this proceeding and that the ALJ's revised Proposal for Decision be forwarded to EPA for review 30 days prior to the record being closed, in accordance with Section IV.F. of the MOA.² EPA also requests that the resulting proposed permit from the contested case hearing proceedings be forwarded to EPA for review in accordance with Section IV.C.3 of the MOA based on the fact that there has been significant public comment with regard to the proposed permit.

We appreciate your attention and cooperation during this permit review process, and look forward to your responses and input. Feel free to contact me at (214) 665-8138, if you have any questions or have your staff contact Mark Hayes at (214) 665-2705, or EMAIL:hayes.mark@epa.gov.

Sincerely yours,

Charles Maguire

Charles W. Maguire
Director

Water Division (WD)

Enclosures

² Section IV.F of the MOA provides that "EPA shall have thirty (30) days to comment on a revised PFD or permit before the record is closed on a proposed permit which contains provisions which differ from the draft or proposed permit reviewed by EPA, as specified in Section IV.C.3. of this MOA, relating to re-reviews. EPA may object in accordance with the grounds and procedures set out in Section IV.C.3 of this MOA. TCEQ staff will transmit to the Commissioners and place into the record of the contested case hearing, if any, all EPA comments and objections on a proposed permit prior to their decision."

cc (electronic): Robert Sadlier, Deputy Director
Water Quality Division (MC-145)
TCEQ

Matthew Udenenwu, Section Manager
Wastewater Permitting Section (MC-148)
TCEQ

Ms. Shannon Gibson
Industrial Permits Team
Wastewater Permitting Section (MC-148)
TCEQ

Mr. Sean C. Strawbridge
Chief of Executive Officer
Port Corpus Christi
400 Harbor Drive
Corpus Christi, TX 78401

ATTACHMENT A

COMMENTS/RECOMMENDATIONS

A. Definition of Process wastewater and Incorrect Rating of the facility as a Minor based on the TPDES Permit Major/Minor Rating Worksheet:

TCEQ classified this facility as a Minor facility based on TPDES Permit Major/Minor Rating Worksheets dated August 2018 and revised July 2019, in large part because "the discharge is recorded on the Worksheets as non-process wastewater. EPA has determined that this is incorrect. POCC is proposing to discharge the waste product resulting from the production of potable/drinking water, i.e., wastewater generated by a reverse osmosis process that contains high concentrations of salt and other impurities relative to the seawater feedstock, and supernatant from solids/sludge thickening and rewatering. EPA has determined that this meets the definition of process wastewater at 40 C.F.R 401.11(q). That section defines process waste water as "any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product."

Pursuant to 40 CFR 122.2, the decision to classify a facility as a Major is to be made by "the Regional Administrator, or, in the case of "approved State programs," the Regional Administrator in conjunction with the State Director." If POCC's discharge is properly classified as process wastewater on TPDES Permit Major/Minor Rating Worksheet, the rating of the facility changes from Minor to Major.³ EPA therefore requests the classification of the facility be changed from Minor to Major.

In addition, EPA requests that going forward desalination facilities in general be classified as Major facilities due to the facilities' discharge of process wastewater.

B. CWA Section 316(b) Rule and requirements:

A clarification request was submitted by EPA (email dated October 27, 2021) regarding the facility's operation in accordance with the requirements of the CWA Section 316(b) rule for new facilities. EPA's understanding from conversations with TCEQ staff is that the POCC does not use and/or proposes to use water for cooling purposes (this was also documented in the permit application submitted March 2018 and 2021). Thus, it appears the POCC facility is not subject to 316(b) requirements. It was also noted that POCC plans to locate the intake structure in the Gulf of Mexico (GOM) that will be covered under a water rights permit. We would suggest establishing an additional provision in OTHER REQUIREMENTS section

³ EPA has provided guidance on rating non-municipal facilities as either major or minor. (<https://www3.epa.gov/npdcs/pubs/owm0116.pdf>). A discharge that contains only process wastewater is classified as a Type II discharge (see page 3 of the NPDES Permit Rating Work Sheet). The Type classification (Type I, II and III) for a discharge influences the score in the NPDES Permit Rating Work Sheet.

of the permit that reiterates the requirement cited in Permit Conditions nos. 1 and 4, that requires the permittee to notify the TCEQ of any modifications and/or alterations within the facility. For this proposed permit, we suggest the requirement for the POCC to notify the TCEQ of any modifications to the use of water withdrawals from the intake structure.

C. CORMIX Model Results:

Below are our comments (dated December 6, 2021) submitted to you via email (on December 6, 2021) as a result of our review of the CORMIX modeling documented in the TCEQ's Interoffice Memo dated August 2021 and the analysis entitled, "Mixing Analysis for the Port of Corpus Christi Authority of Nueces County." We note that the CORMIX model was used to characterize the effluent discharge via a diffuser for the calculations of water quality limits and the reasonable potential (RP) analysis. We are resubmitting them to you to include these comments along with your responses (dated December 8, 2021) in this Interim Objection Letter for required follow-up as needed and for completeness of record.

EPA December 6, 2021 Comment 1:

The memo states that "if the effluent flowrate decreases by more than 10%, the diffuser ports can be blocked, or smaller diameter ports can be used to maintain the same port exit velocity" and that when the port velocity is maintained, the diffuser can achieve the same effluent dilutions at lower effluent flow rates. This would be true if two conditions exist: 1) The ports are (and will remain) close enough together that the jets from each port merge within a short distance after discharge, and 2) the overall length of the diffuser is unchanged. It would be easier to maintain those conditions if the ports are shrunk, rather than blocked. So, if it's likely that the flow rate will decrease from the current proposal, is it possible to clarify their plans for modifying the diffuser to account for that? That said, the scenarios for 50% recovery did use a lower flow rate (83.1 mgd instead of 95.6 mgd) and that didn't reduce the dilution achieved. If the plan is to block ports on the end(s) of the diffuser (so that the port size and spacing can remain the same), then it would be recommended that some additional scenarios be run reflecting the shortened diffuser length, just to verify that dilution isn't reduced.

TCEQ December 8, 2021 Response 1:

For new discharge applications where a diffuser is proposed, the TCEQ guidance document Mixing Analyses Using CORMIX specifies that the proposed permitted flowrate should be evaluated. The proposed permit authorizes one flow phase (95.6 MGD), which is the proposed flowrate associated with the facility operating at a 40% recovery rate. Additional cases were modeled using an effluent flowrate of 83.1 MGD because this is the proposed effluent flowrate when the facility operates at a 50% recovery rate. The same diffuser design was evaluated for both effluent flowrates, and no other diffuser design was submitted with the application.

Once the facility begins discharging, the permittee will be required to maintain the diffuser such that a maximum effluent percentage of 14.6% be achieved regardless of the actual effluent flowrate. This requirement is defined in the proposed permit under Other Requirement No. 4. Failure to operate the diffuser such that 14.6% effluent or less is achieved at the edge of the ZID would be a violation of this permit requirement.

Additionally, Permit Conditions Nos. 1 and 4 require the permittee to notify the Executive Director of relevant information related to a permit application or if any planned physical alterations or additions will be made to the permitted facility. Therefore, if the diffuser design is amended, the permittee is required to submit the relevant information to the Executive Director. At that time, the Executive Director will review the information and determine if a permit amendment is needed.

EPA December 6, 2021 Comment 2:

Also, the August 10, 2021 memo states on Page 8 that, because the receiving water is tidal, and because the mixing zones are centered on the diffuser barrel, the analyst evaluated the location at which the plume centerline intersects the regulatory mixing zones at one-half the downstream distance in the x-direction. This appears to be fine, however, it may not be "conservative," as stated in modeling documentation. This assumption adequately accounts for the fact that the ambient velocity is tidal and that the mixing zone is centered on the diffuser, so the plume would only need to travel half the total size of the mixing zone before it reaches the boundary. However, it doesn't take into account any re-entrainment or buildup that may occur due to the reversing flows. The CORMIX model does have some capability to model "unsteady" ambient environments, as described in Section 4.4.3 of the user manual.

TCEQ December 8, 2021 Response 2:

The location at which the plume intersects the mixing zone boundaries was described as "conservative" in the 8/10/2021 memo compared to the location the applicant used to assess where the plume intersects the mixing zone boundaries. Specifically, the applicant used the full downstream distance in the x-direction whereas I used one-half the downstream distance. Because the plume becomes more diluted the farther it travels from the diffuser ports, by assessing the model predictions at one-half the downstream distance, the centerline of the plume is more concentrated at this location than at the full downstream distance. Thus, the locations at which the model predictions were assessed are conservative compared to how they were assessed by the applicant.

The basic CORMIX methodology relies on an assumption of steady-state ambient conditions because the time scale for mixing processes is typically on the order of minutes up to approximately one hour. The TCEQ guidance document for reviewing diffusers does not address unsteady ambient flow conditions (i.e., tidal reversing) since tidal reversing is a phenomenon that typically occurs twice per day following each slack tide and represents conditions that only occur for a few minutes each day. Therefore, predictions of effluent concentrations are more representative under steady state ambient conditions rather than at unsteady ambient conditions which occur infrequently and for a short duration. Additionally, using the unsteady tidal velocity option for this permit application would be inconsistent with how the TCEQ reviews other diffuser discharges into tidal water bodies.

D. Permit Conditions for Total Dissolved Solids (TDS), Sulfates, and Chlorides:

The proposed permit establishes reporting and monitoring requirements for parameters TDS, sulfates, and chlorides. It is cited in the statement of basis that there's no national effluent

limitation guidelines for this type of operation and therefore, reporting and monitoring requirements were based on best professional judgement (BPJ). It was also stated that there are no numeric water quality criteria for TDS, sulfates, and chlorides for this waterbody segment, and that “ the applicant performed extensive analyses and modeling to conclude . . . the discharge would not impact salinity gradients in the surrounding waters and that survival, growth, and reproduction of aquatic life would not be significantly impacted . . .” We request additional information and rationale on how based on BPJ, reporting and monitoring requirements were established (i.e., requirements and conditions of similar permitted operations and waste streams).

E. Tier 2 Antidegradation Review:

The statement of basis documents that “A Tier 2 review has preliminary determined that no significant degradation of water quality is expected in Corpus Christi Bay . . .” In response to the TCEQ Executive Director’s request for clarification and the Interim Order of May 26, 2021, POCC submitted additional updated information (relocation of the outfall and design of the diffuser) for a revised Tier 2 Antidegradation review. However, the TCEQ should include in the statement of basis, the acknowledgement of this additional information provided by the POCC and confirm and/or address how this complies with the TCEQ’s Tier 2 antidegradation review policy.

F. Whole Effluent Toxicity

Whole Effluent Toxicity (WET) requirements were revised from the first version of the proposed permit. The most current version of the permit includes chronic testing requirements, using approved marine chronic methods with the most sensitive vertebrate and invertebrate marine species available. The critical dilution calculated is a result of the CORMIX model (see comments above). EPA would like to note that WET testing is a part of EPA’s integrated strategy in the assessment of water quality, which includes the use of three control approaches (the other two being chemical-specific limits and biological criteria). As such, EPA reminds TCEQ that WET is not intended to take the place of any other biological assessment that is appropriate for water quality assessment of this receiving stream.